

**EXHIBIT 83  
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## Message

**From:** [REDACTED]  
 on behalf of Ken Babcock [REDACTED]  
**Sent:** 3/4/2016 4:18:10 PM  
**To:** ATC Competitive Intelligence [REDACTED]  
**CC:** Jamie Epifano [REDACTED]; Justin Ho [REDACTED]; Aaron Melville [REDACTED]  
**Subject:** [ATC] Competitive Intelligence Update: Week Ending 03/04/2016 - A/C Privilege

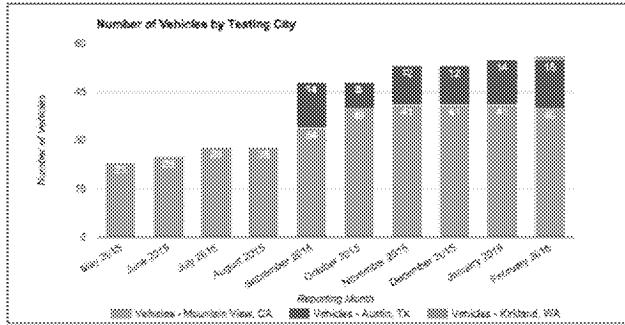
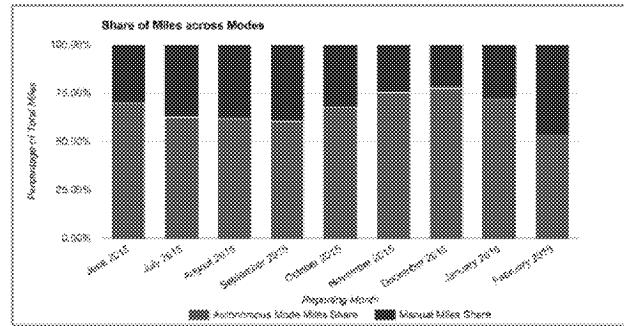
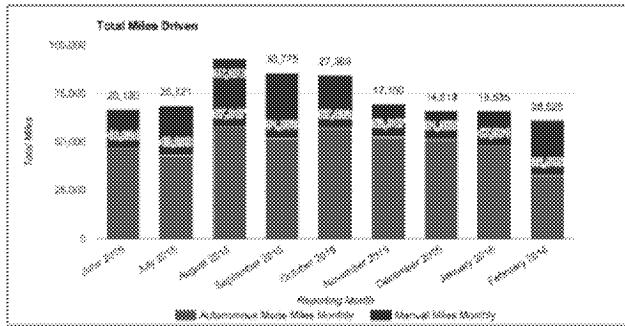
*Attorney Client Privilege*

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## WEEKLY DEEP-DIVE: GOOGLE MONTHLY REPORTS

For this week's links and all past deep dives, please view the [deck](#)

### Week of 03/04/2016 Deep Dive: Google Monthly Reports Attorney / Client Privilege



#### February 2016 Insights ([Link](#))

- Google has driven 1,452,177 autonomous miles since 2009
- The Fleet is comprised of 23 Lexus RX450h SUVs and 33 Google-developed prototypes

#### Accident Report

- Occurred on 2/14 on El Camino Real
- Recently programmed "right-lane hugging" intelligence for right turns was upstream problem
- Vehicle detected sandbags and tried to move back into the center lane, expecting a bus to yield, bus did not yield

## CURRENT EVENTS COMPETITOR UPDATE

### KEY POINTS

- Changing lanes at 2 mph, a **Google** self-driving Lexus SUV driving in autonomous mode collided with a bus moving at 15 mph due to a sensor misinterpretation of sandbags around a storm drain
- Following colleague Jim Keller, former **Apple** Director Peter Bannon will join **Tesla** Motors. Both Keller and Bannon helped develop the A4 and A5 chipsets that powered iPhones from 2010 to 2012
- **Apple** secures lease of 96,000 square foot former Pepsi bottling plant in Sunnyvale, CA
- **Volkswagen Group** is planning to launch 20 electric vehicles across its brands by 2020, aided by 'Future Centers' in China, California, and Germany
- **Ford** will head to downtown Phoenix streets to test urban environments and scenarios in Summer 2016
- **Faraday Future** Chief Battery Architect Porter Harris, referred to as 'the battery', quit this January
- MIT Technology Review names **Tesla's** Autopilot a Top 10 'Breakthrough Technology' for 2016
- **General Motors** executives announced that car-sharing service, Maven, will be available to everyone (not just students) in Ann Arbor to utilize 35 cars ranging in price from \$6-\$12 per hour
- Zipcar claims to be "in the mix as much as anyone could be" on self-driving cars. In the past, Zipcar has worked with **Ford**, **GM**, and **Toyota**

### Google

- **Google's self-driving car technology at fault for first time in accident with bus:** Changing lanes at 2 mph, a self-driving Lexus SUV driving in autonomous mode collided with a bus moving at 15 mph. The 2/23 accident occurred when the vehicle's sensors detected sandbags around a storm drain, stopping the car in its tracks. No injuries were reported, but damage was caused to the Google car's fender ([Source - Wired](#)).
- **Tampa Bay eyed as next location for self-driving car testing:** Presenting to the Tampa Bay Regional Transportation Authority, the Florida DOT stated that Google's self-driving car testing would be coming to Tampa, and that self-driving cars would have eventual implications on infrastructure ([Source - Biz Journals](#)).
- **Google-funded Sidewalk Labs working alongside 10 cities to win grant for revamping transportation infrastructure:** Sidewalk Labs is providing 'real-time data' to 10 cities to understand their daily traffic activity as the cities vie for a federal grant of \$40M to transform transportation ([Source - The Verge](#)) ([Full List](#)).

### Apple

- **Apple secures lease of 96,000 square foot former Pepsi bottling plant in Sunnyvale, CA:** The Silicon Valley Business Journal announced on 3/1 a lease signed in November for an additional Apple Sunnyvale office, which many speculate will be used as a facility for 'Project Titan' ([Source - Business Insider](#)).
- **Fiat Chrysler CEO advises Apple, technology companies to partner with car makers:** Sergio Marchionne, CEO of Fiat Chrysler, compared an in-house Apple car to an illness, saying, "If they have any urges to make a car, I'd advise them to lie down and wait until the feeling passes" ([Source - Streetwise Journal](#)).
- **Apple Director takes chip-making experience to Tesla, joins former colleague:** Following colleague Jim Keller, former Apple Director Peter Bannon will join Tesla Motors. Both Keller and Bannon helped develop the A4 and A5 chipsets that powered iPhones from 2010 to 2012 ([Source - Bidness ETC](#)).

### Audi / Volkswagen

- **'Future Centers' in China, California, and Germany to design 'car of the future':** VW is planning to launch 20 electric vehicles across its brands by 2020, aided by 'Future Centers' ([Source - Contract Hire and Leasing](#)).
- **Volkswagen CEO commits to investment to bring self-driving cars to market the fastest:** VW Group CEO Matthias Mueller confirmed investment in autonomy to bring self-driving cars to market the fastest. Executive Johann Jungwirth stated

building hardware *and* software is the recipe for success (*Source - Top Gear*).

## Ford

- **Exec states Ford deciding if they will develop maps on their own or find a strategic partner:** Aspiring to SAE Level 4 autonomy by 2020, Ford Chief of Product Raj Nair said in an interview that the questions remains unanswered whether they will source maps from a partner or develop in-house (*Source - Automotive News*).
- **Testing in Phoenix, AZ in Summer 2016 marks first leap into urban environments:** Highlighting a decade's worth of experience in autonomous vehicle technology, Ford will bring its expertise to downtown Phoenix streets to test urban environments and scenarios in Summer 2016 (*Source - 12 News*).
- **VP confirms 100 people working in Silicon Valley lab:** Ken Washington, Ford VP of Advanced Engineering, said their Silicon Valley lab has 100 employees and has met with 200 valley startups (*Source - Mirror*).

## Faraday Future

- **Former executive indicates first Faraday car will be 'no Tesla killer', priced high:** A former Faraday executive leaked that Faraday's first car won't be a 'Tesla killer,' and instead said it would be much larger and heavier - in both weight and cost at around \$150,000 (*Source - Road and Track*).
- **Faraday Future commits to securing bonds and providing additional funding:** Amidst Nevada skepticism about Faraday's financial stability, the company secured a surety bond of up to \$75MM and deposited \$13MM into escrow accounts for construction of water and rail facilities (*Source - Las Vegas Review-Journal*).
- **Faraday loses battery architect; other former executives speculate on technology licensing:** Chief Battery Architect Porter Harris, referred to as 'the battery', quit this January (*Source - The Guardian*).

## Tesla

- **Morgan Stanley identifies Tesla as best positioned for shared mobility in recent report:** According to Morgan Stanley, Tesla is well-positioned for shared mobility due to battery capabilities, car design, autonomous tech, and that 100 percent of its current fleet is connected to the internet (*Source - LearnBonds*).
- **MIT Technology Review names Tesla's Autopilot a 'Breakthrough Technology' for 2016:** For Tesla to be considered among the 10 top breakthrough technologies, the technology needed to "have a chance at solving a big problem" and open new opportunities (*Source - Fox Business*).
- **Motley Fool Analyst tests Autopilot on 61-mile stretch of Colorado highway:** For 61 miles of highway, analyst Daniel Sparks only touched vehicle controls to signal a lane change (*Source - The Motley Fool*).

## MARKET DEVELOPMENTS

### 1. Testing, grant competition, and mobility solutions top of mind for US cities:

- **Los Angeles:** Chris Urmson, head of Google's self-driving car project, spoke as a part of the LA Times' California Conversation series to 250 people on the future of autonomy (*Source - LA Times*).
- **Ann Arbor + NYC:** GM executives announced that car-sharing service, Maven, will be available to everyone in Ann Arbor to utilize 35 cars ranging in price from \$6-\$12 per hour (*Source - MLive*). In addition, Maven is expanding their resident car sharing program to two additional Stonehenge Real Estate residential buildings in NYC, totaling three today (*Source - PR Newswire*).
- **Lincoln:** As a part of the US Department of Transportation's 'Smart City Challenge', Lincoln, NE is competing alongside 77 other mid-sized cities for a \$40M grant (*Source - 1011 Now*) (*Full List*).
- **Palo Alto:** Stanford's 'Shelley' - a retro-fitted Audi TT-S - is testing at Thunderhill Raceway in Willows, CA at speeds of 50-75 mph, with the ability to go over 110 mph (*Source - The Stanford Daily*).
- **Denver:** Amidst competing for the 'Smart City Challenge' grant for \$40M, Denver is working with The Rocky Mountain Institute to study autonomous vehicles (*Source - Colorado Public Radio*) (*Full List*).

2. **International markets continue push to develop autonomous car technology:**
  - **China:** Nevijo Mance, VP of BMW China, pinpoints China as the dominant market for autonomous driving technology after partnering with Baidu and testing in China (*Source - China Daily*).
  - **Yorkshire, UK:** Control F1, a six-person team based in the UK, will develop data collection systems for AVs to integrate event data, weather reports, and route planning (*Source - The Yorkshire Post*).
  - **India:** Dr. Roshy John configured sensors on top of a rear-engine Tata Nano to develop a self-built autonomous car (*Source - Deccan Chronicle*).
3. **Zipcar prepares business model to integrate with self-driving cars:** Nichole Mace, VP of Product and Member Experience for Zipcar, told the Boston Herald, “We are in the mix as much as anyone could be,” in response to questions on autonomous cars. Zipcar has worked with Ford, GM, and Toyota (*Source - Forbes*).
4. **Goodyear unveils ‘concept tires’ for autonomous vehicles at Geneva International Motor Show:** Two concept tires - the Eagle-360 and Intelligrip - are designed with self-driving cars in mind. The Eagle-360 would rely on magnetic levitation for ultimate maneuverability, while the Intelligrip would communicate road and weather conditions to the vehicle for increased safety (*Source - PR Newswire*).
5. **Kia leading Hyundai Motor Group’s charge into self-driving cars through ‘DRIVE WISE’ sub-brand:** KIA ‘DRIVE WISE’ will develop current and future ADAS technology with the goal of manufacturing partially autonomous vehicles by 2020 and fully autonomous vehicles by 2030 (*Source - Just Auto*).
6. **AAA survey indicates that 75% of people would not feel safe in an autonomous vehicle:** In an 1,800 person survey conducted by AAA, 75% of participants would not feel safe in an autonomous vehicle, but 60% of participants said they want autonomous features in their next car (*Source - Fortune*).
7. **Continental acquires Hi-Res 3D Flash LIDAR business from Advanced Scientific Concepts, Inc. (ASC):** Acquiring for an undisclosed price, ASC’s LIDAR business will bolster Continental’s ADAS capabilities with its real-time machine vision and environmental mapping. Engineers from ASC will join the Chassis & Safety Division at Continental, based in Santa Barbara (*Source - Automotive World*).

## QUOTE OF THE WEEK

*“For the first time in history, older people are going to be the lifestyle leaders of a new technology” - Joseph Coughlin, Director of MIT’s AgeLab, on self-driving cars*



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